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This service distributes medical news and information to Sailors and Marines, their families, civilian employees, and retired Navy and Marine Corps families. Further dissemination of this email is highly encouraged. Stories in MEDNEWS use these abbreviations after a Navy medical professional's name to show affiliation: MC - Medical Corps (physician); DC - Dental Corps; NC - Nurse Corps; MSC - Medical Service Corps (clinicians, researchers and administrative managers). Hospital Corpsmen (HM) and Dental Technician (DT) designators are identified in front of their names.

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Headline: Don't equate anthrax shots and PB controversy, Cohen says
By Jim Garamone, American Forces Press Service

DUBAI, United Arab Emirates -- DoD's ongoing anthrax vaccination program and its use of pyridostigmine bromide during the 1991 Gulf War aren't the same -- and no one should equate the two, Defense Secretary William Cohen said Oct. 20.

There is no correlation between the anthrax vaccine and PB, Cohen said during a press conference here. Anthrax

vaccine has been used in the civilian community since 1970, when the Food and Drug Administration approved its use, he said. Its side effects are similar to those of flu and other common immunizations -- they're mostly mild and go away on their own and known serious ones are rare.

"What we have to do is make the best possible policy judgments," Cohen said. "Given the potential for our forces to be exposed to an anthrax threat, which is one of the most deadly they could encounter, it would be irresponsible not to insist they be properly protected."

The secretary last year required that independent experts test the anthrax vaccine and approve it before he would allow the vaccination program to proceed. "In order to show that I believe absolutely in the safety, in the veracity of the vaccine, I've had six of the vaccine injections to date," he said.

Cohen said he knows some critics argue that service members should be allowed to choose to take the shots. "You would not send one of your warriors into the field without a helmet saying 'I don't want to wear a helmet,'" he said.

"You would not send a soldier into the field without a flak jacket, saying 'I prefer to have an open shirt.'"

The pyridostigmine bromide situation is different. The investigational drug was not fully FDA-licensed but was the only available protection against soman, a deadly nerve agent known to be present in the Persian Gulf region before and during the war. At the time, soman was considered a greater risk than PB's possible side effects, DoD officials said, estimating 250,000 troops received packets of the drug.

The Pentagon released a RAND Corp. report Oct. 19 that suggested there could be a connection between PB and Gulf War illnesses and called for further study because available information is inconclusive. The RAND study speculated hot, stressful conditions such as Desert Storm might cause the brain to absorb larger-than-normal amounts of PB, which in turn might affect the brain chemical that regulates sleep, pain, mood, muscle function and thinking.

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Headline: Trauma training saves life high school student
By Kimberly A. Rawlings, Bureau of Medicine and Surgery

Washington -- Trained to handle diving, airborne and battlefield trauma, Hospital Corpsman 1st Class (SW/FMF/DV/PJ), Special Amphibious Reconnaissance, Mike L. McNair did not expect to use his training to save a 14-year-old girl.

While transporting a Marine for a surgery consult, McNair and his passenger, Marine Staff Sgt. Leon Mook were making their way through the morning rush hour in Virginia Beach, when McNair noticed a book bag, tennis shoe and a sock on the ground.

Because they were approaching a high school, Mook and McNair thought a student's bag had fallen out of a car.

Then, McNair yelled for his companion to pull over when he noticed a young girl lying alongside the road.

The corpsman began a primary survey of the victim and noticed she was taking labored breaths. He immediately gave her oxygen.

"I knew right away right away that this was a very serious injury. When I looked at her eyes and saw that one pupil was blown, I knew I had a bad situation," he said.

Equipped with the standard equipment for covering a reconnaissance physical training session- a trauma bag, oxygen and a backboard - McNair went to work.

He later learned that the girl had been thrown onto the windshield of a car, suffering a severe head injury and fractures to her leg, arm and collarbone.

McNair said that even though he had a backboard, he knew from his medical training that he needed to wait for help before moving the girl. When the ambulance arrived it took six paramedics to put the victim on the board.

As McNair attended to the patient, Mook took control of the crowd as they stood by wanting to help but not knowing what they could do. A cell phone in the group was used to call for an ambulance and to call the girl's home.

McNair used clothing from bystanders to keep the victim from going into shock.

"I took the articles of clothing and rolled them up to help stabilize her neck until the EMS arrived," said McNair.

Calling to the victim by the name found in her book bag, McNair comforted her. "I said, "Elizabeth are you with me? You're doing great. Squeeze my hand." She didn't.

Before the ambulance got there, Elizabeth's mother, who is a physician's assistant, arrived and looked on anxiously as McNair helped her daughter hold on to life.

Capt. Dave Price, commanding officer of Navy Legal Services Office Mid-Atlantic, believes that the efforts on the scene were extremely valuable to saving his daughter's life.

"Years ago I would have called it a coincidence, today I call it a God incident," said Price speaking of McNair and Mook arriving on the scene moments after the accident.

"The two individuals were guardian angels sent to take care of my daughter. "

Since the accident, Elizabeth has undergone surgery here condition is improving.

"It makes me feel good that I was able to do what I was trained to do. I have a daughter too, and I would want someone to be there for her," said McNair.

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Headline: Medical researcher receives scientific achievement award

From Office of Naval Research

WASHINGTON -- A Navy medical researcher who made singular contributions to malaria vaccine research will receive the

Robert Dexter Conrad Award Oct. 28 at the Office of Naval Research here.

Capt. Stephen Hoffman, MC, will be presented the gold medal award, the Navy's highest honor for scientific achievement, by Jerry M. Hultin, Undersecretary of the Navy, on behalf of the Secretary of the Navy.

As Director of the Malaria Program at the Naval Medical Research Center in Bethesda, Md., Hoffman lead the effort to sequence the first malaria chromosome, thereby discovering numerous new targets for vaccine and drug development.

He recently reported the first immunization of humans with a DNA vaccine. That paved the way for a future multi-gene DNA vaccine against malaria and other infectious diseases as well as biological warfare threats.

Hoffman created the world's leading malaria vaccine program, which is internationally acclaimed as innovative in the pursuit of one of nature's most challenging biological problems. He also established associations with academia and private industry resulting in multiple cooperative research and development agreements and more than 15 Navy-initiated patent applications.

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Headline: Vaccinations continue as Army commissions anthrax studies

By Douglas J. Gillert, American Forces Press Service

WASHINGTON -- An interagency team of medical experts will coordinate long-term studies on the safety and effectiveness of the anthrax vaccine. Responding to concerns of some service members and their families, the Army's Anthrax Vaccine Immunization Program office established a committee to look closer at the vaccine. The office falls under the Army surgeon general, executive agent for the DoD anthrax immunization program.

The committee includes representatives from DoD, the Food and Drug Administration, Centers for Disease Control and Prevention and the Armed Forces Epidemiological Board. Defense officials described the committee as a "roll-up-your-sleeves working group" intended to define research needs and set up studies to answer questions raised about the vaccine.

A variety of researchers will be used, possibly including existing federal research scientists, contracted civilian universities and independent researchers, officials said. But even as the Army looks for problems with the vaccine, DoD will continue requiring service members to receive the shots.

"Anthrax is considered the No. 1 biological threat in the world today," said Lt. Col. John Grabenstein, deputy director of the Anthrax Vaccine Immunization Program. "It is lethal on the battlefield." Because service members may be vulnerable, it's necessary to continue inoculating them against anthrax while the studies are conducted, he said. The first studies of the anthrax vaccine's safety were

reported in the Bulletin of the Johns Hopkins Hospital in 1958, 12 years before the Food and Drug Administration approved and licensed it for use. Additional studies have followed through the years. Grabenstein, who co-chairs the committee, said it's common to continue studying long-term effects after a vaccine is approved for human use. In the case of anthrax, however, earlier and ongoing studies have been more extensive, he said.

"Continuing to collect more data is simply part of our proper responsibilities for assessing the safety of this vaccine," he said.

Some of the more favorable information on the anthrax vaccine comes from Fort Detrick, Md., where laboratory workers at the Medical Research Institute of Infectious Diseases have received the shots for nearly 30 years without discernible problems.

"Of 1,700 laboratory workers followed for 10 to 25 or more years after anthrax vaccination, none developed any unexplained symptoms due to repeated doses of anthrax or any other vaccine they received," Grabenstein said. "Those are the folks that give us the greatest confidence in the safety of this vaccine."

In another study at Tripler Army Medical Center in Hawaii, 600 hospital workers were evaluated after getting the first three of six required doses. "We're planning a follow-on study after they receive their fourth, fifth and sixth doses, and we'll continue monitoring them for a period of time," Grabenstein said.

Another study uses databases to, for example, compare individual shot records against hospital visits to see if any unusual patterns appear.

What hasn't been decided is what new research the committee will commission, if any. "That's why we are bringing in scientists from the FDA, CDC and Armed Forces Epidemiological Board - to give us the nation's best advice," Grabenstein said.

The studies look for signs that the vaccines may cause more than initial side effects, such as increased long-term cancer or reproductive health risks. But Grabenstein said there's no reason to expect they'll find anything that so taints the anthrax vaccine it will cease to be licensed for use.

"There have been no long-term or delayed effects from other vaccines, and we don't have any reason to expect it to happen with the anthrax vaccine," he said. "But we're going to make sure." The latest studies will last from a few to 10 or more years.

"We're going above and beyond standard requirements to provide additional information to satisfy questions from service members," he said. "It's important for us to have not just a good vaccine but have public confidence in the vaccine."

Grabenstein said he and others associated with vaccine studies don't expect to find any major problems with the

anthrax vaccine.

"People who have gotten 10 or 30 years worth of flu shots don't have long-term effects from those shots," he said.

"That's a good analogy of what we expect with multiple doses of anthrax vaccine over time, and that's what has already become apparent at Fort Detrick."

The human immune system is designed to confront multiple challenges with multiple defenses, Grabenstein said. "Your body is able to carry around in it simultaneously a billion different antibodies. We have a wonderful defense capability with our immune system."

Vaccines serve as so-called "dress rehearsals" for attacking real microbes, Grabenstein said. "The vaccine prepares you so that if you're confronted with the real microbe -- in this case, the anthrax weapon -- you literally have a layer of armor to protect you, but the armor's inside you.

"Anthrax vaccine is just another vaccine," he said.

"There's nothing special about it -- no quality waivers were granted by the FDA, and there were no shortcuts in its production process. It is a quality vaccine. I got in line to get mine with no hesitation. I see no reason to avoid it, and I recommend it to everybody for personal protection."

For more information about the anthrax vaccine and the DoD anthrax vaccination program, visit the Anthrax Immunization Program Web site at <http://www.anthrax.osd.mil/>

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Headline: Salivary diagnosis is an emerging technology
By Doris Ryan, Bureau of Medicine and Surgery

WASHINGTON -- In the past year, two outbreaks of tuberculosis aboard a Navy ship have demonstrated that tuberculosis, better known as TB, has become a re-emerging infectious disease with military relevance.

Such outbreaks may mean operational units will have to be checked more frequently for exposure to TB. But the good news is the once invasive and time-consuming skin test for TB may no longer be necessary thanks to the hard work of scientists at the Naval Dental Research Institute (NDRI). NDRI researchers believe they can adapt their technology for testing oral fluids for proteins to develop a one-visit, inexpensive, five-minute screening test for exposure to bacteria that cause TB. Their existing saliva and other oral fluid-based tests are simple to perform, use procedures that can be learned in 5 minutes and do not require any special qualifications.

This research, being conducted by NDRI's Chief Scientist, Lloyd Simonson, represents an important step in the use of oral fluids such as saliva, versus blood, to determine a patient's immune status. This type of screening is a significant improvement over present technology, which requires 48 to 72 hours for a reaction to develop and a follow-up visit to obtain results.

Salivary and oral fluid-based diagnostics may present

tremendous readiness possibilities for the military. This technology holds potential for rapid detection of antibodies signaling exposure to many diseases and environmental substances.

Saliva testing may also help screen personnel to ensure that they are complying with prescription directions. If a simple, inexpensive test for antibiotic levels had been available last year, the second outbreak on the Navy ship could have been avoided. Looking even further to the future, this research could be broadened to explore chemical exposure detection as well other aspects of the warfighter's medical status.

Simonson said, "I feel that medicine is just starting to realize the potential value of saliva-based tests. It is exciting to consider that saliva could be a very important body fluid for detecting and monitoring numerous diseases and conditions. It is much simpler and faster to collect saliva than a blood sample, and patients should appreciate that needles are not needed to collect it."

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Headline: Military health system completes Y2K end-to-end testing

By Douglas J. Gillert, American Forces Press Service

WASHINGTON -- All systems were "go" during a worldwide check of Military Health System computers that track patient care, patient administration and medical logistics. The successful end-to-end testing validated preparations DoD and service medical departments have made for the Year 2000 computer date rollover. Testing will continue, however, and as Jan. 1, 2000, draws near, DoD and the services will try to stay on top of the complex system to ensure it keeps working.

During the three months of testing that ended Sept. 30, technicians set system dates forward to the year 2000. Then system users simulated transactions for each of the key health system functions. The simulations included enrolling patients in TRICARE, checking beneficiary eligibility, accessing computerized medical information, verifying immunizations and processing patient claims.

The testing also checked whether military medical facilities can deliver health care uninterrupted during the calendar rollovers, medical systems are in sync with lateral systems such as the Defense Eligibility Enrollment System, and that business will continue as usual with vendors who sell DoD medical supplies, equipment and pharmaceuticals. The end-to-end testing validated that the computers that support each of these areas are Y2K compliant.

"We put these systems through more rigorous testing than has ever been done," said Lt. Cmdr. Lyn Hurd, MSC, Military Health System Y2K program manager. "We pushed through more than 9,000 transactions, then put those transactions under a microscope to see that they worked properly, not just on Jan. 1, 2000, but also for the fiscal year rollover, Oct. 1,

and the leap year rollover, Feb. 29, 2000. We dissected them all."

The objective now is to validate any system modifications made since the testing was done and, as necessary, recertify the systems are Y2K ready, Hurd said.

A Year 2000 situation awareness team with representatives from DoD Health Affairs, the TRICARE Management Activity and the service medical departments managed the testing and will monitor the entire health system, at least through the end of March 2000. Team members operate from their separate locations and are currently monitoring the system weekdays. They'll begin round-the-clock operations, seven days a week, as the critical dates approach.

"Monitoring Y2K events around the world, the Year 2000 situation awareness team will put together a Military Health System picture of what's happening in the three services and with our managed care support contractors," Hurd said. The contractors -- civilian providers that support TRICARE by delivering health care services to DoD beneficiaries -- are as ready as the rest of the system, he said.

"We engaged with our contractors very early on to make certain they would be prepared for Year 2000," Hurd said.

"They've been full partners with us in all of the end-to-end testing."

The situation awareness team will interface with the National Military Command Center to make sure defense leaders understand how the medical system is fairing with Y2K. On Dec. 31 and again Feb. 28, 2000, they will look for initial reports to come out of such places as Guam, Korea and Japan, where DoD organizations will first experience the rollovers.

"If an impact is observed in those places that first experience Year 2000 (hospitals in the Pacific Rim), we can let the rest of the Military Health System know what those impacts are, learn from their experience and be better prepared in the other locations."

"Providing quality patient care is our highest priority," said Dr. Sue Bailey, assistant secretary of defense for health affairs. "I am proud of the proactive approach our people have taken to ensure that the Military Health System is ready for the new millennium."

More Military Health System Y2K information is available on the Internet at <http://www.tricare.osd.mil>. Related sites of interest: <http://www.defenselink.mil/specials/y2k>, Confronting Y2K at <http://www.senate.gov/~y2k/index.html>, Special Committee on the Year 2000 Technology Problem at U.S. Senate Y2K

<http://www.senate.gov/~y2k/documents/100dayrpt/index.htm>

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Headline: Puget Sound clinic improves access to physical therapy

By Judith Robertson, Naval Hospital Bremerton

BREMERTON, Wash. -- Naval Hospital Bremerton's resource

sharing with other commands has produced a \$250, 000 cost savings for a new physical therapy clinic and improved access to care with its Oct. 13 opening at Naval Station Bremerton,.

The project combined two original costly plans into one using resources from four principal players to create an ideal outcome, according to Cmdr. Dan Frederick, MSC, officer in charge of the Naval Hospital's Branch Medical Clinic, who will run the facility.

"Naval Station Bremerton, Puget Sound Naval Shipyard, Naval Hospital Bremerton and its Branch Medical Clinic at Puget Sound Naval Shipyard all benefited from this cooperation of effort, space, dollars and human resources," Frederick said.

The clinic, staffed by a physical therapist and two physical therapist technicians, offers a range of services, such as those needed by orthopedic post- operation patients or occupational health patients. The clinic also performs physical capacity evaluations on all new Puget Sound Naval Station civilian employees.

"This is a perfect example of how the Navy is doing things smarter. It just took people talking to make this happen. It is a win-win situation," said Capt. Judy Holden, USN, commanding officer of Naval Station Bremerton.

Frederick said clinic may see about six hundred customers a month, providing physical therapy services for Naval Station Bremerton Sailors and occupational health services for Puget Sound Naval Station civilian workers.

"Both commands benefit from a significant decrease in lost production time with this 'deck plate' operation. It just makes for better business practice," Frederick said.

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Headline: Great Lakes opens health education center

By Lt. Youssef H. Aboul-Enein, MSC, Naval Hospital Great Lakes

GREAT LAKES, Ill. -- Because of the unique mission of Naval Hospital Great Lakes, which focuses on ensuring healthy recruits reach the Fleet and caring for their family members and a retiree community, it was appropriate that a health education center was dedicated in September.

Lt. Cmdr. Cindy Davis, NC, manager of the new center, said the center is designed to increase patient knowledge about health and wellness. The center comprises the Breast Education Center, the Continuing Care Clinic and Resource Room. She said the center is a result of teamwork between the Medical, Medical Service and Nurse Corps as well as civilian employees.

At the opening of the facility, many family members browsed through the resource room and viewed many health-related topics. They were shown new services, which include a lending library of books and videos. The facility also has TVs and VCRs, CD-Roms, medical charts and texts as well as computers linking Sailors, recruits and their families to

internet sites.

The Continuing Care Clinic has four sections to meet patient needs. They include a diabetes clinic, gestational diabetes education, and classes for newly diagnosed patients.

A refill clinic provides emergency refills for patients and the lipid clinic helps patients understand the role of high cholesterol and other risk factors that contribute to heart disease.

The medical nutrition therapy clinic ensures that its customers understand the importance of a healthy diet.

"It provides therapy in a team concept with pharmacists, nurses and health educators, who work closely with the patient's primary care provider. This offers specific information about a person's diet and management of healthy food intake," said Cmdr. Martha Slaughter, MSC, the hospital's chief dietician.

Naval Hospital Great Lakes is forging a healthy community of recruits, Sailors, families and retirees to help prevent illness and contribute to a quality life.

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Headline: Children may find treats at home are really tricks
By Lt. Cynthia L. Lotshaw-Vandermeer, NC, Branch Medical Clinic, Atsugi,

ATSUGI, Japan -- This time of year is of particular concern to parents because children who have been trick or treating will receive large amounts of candy, and the children may assume that all that looks good is okay to eat. Parents know that they have to help the little ones in the decision-making process about what in their bag is good for them and how much the trick or treaters can eat before becoming ill.

That parental caution should continue beyond Halloween. Children are very curious by nature and explore their environment as much as possible. Often, they encounter hazardous substances in the home such as medications, alcohol and tobacco products that can be mistaken for candy. Children, thinking that they've found a treat, can ingest these substances and be poisoned.

In proper doses medication can be very helpful in treatment of illness and injury. In excessive dosages, however, medications can be very hazardous. For example, an overdose of dimetapp (medication used for treatment of congestion) can lead to nervousness, dizziness, headache, heart palpitations and more. Acetaminophen (tylenol) can lead to anemia and liver failure. Nicotine (from cigarettes, cigars, chewing tobacco, snuff, nicotine patches or nicotine gum) can lead to headache, low blood pressure and heart failure. Alcohol in excessive amounts can lead to nausea, vomiting, headache, seizures and death.

Because no container is completely childproof, make sure that your medications (including over-the-counter products) are kept out of reach and out of sight of small

children. Some people use lockable boxes to protect their children from these potential hazards. Avoid taking medications in front of children who may think that if it's okay for you, it's okay for them. Be especially aware and careful with alcohol and tobacco products. It's easy to overlook the ashtray with cigarette butts or the bottle of alcohol on the shelf. Don't trust that bad taste will keep the child away. Children often will ingest things that taste bad, or will at least try it and absorb a dangerous amount.

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Anthrax question and answer
From Bureau of Medicine and Surgery

Question: Is the anthrax vaccine experimental and under investigation?

Answer: No. The anthrax vaccine is not experimental nor is it under investigation. It was licensed by the FDA in 1970 for general use. It has been used safely to protect at-risk industrial and laboratory workers for almost 30 years.

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Headline: TRICARE question and answer
From Bureau of Medicine and Surgery

Question: I am a retiree and have decided to enroll in TRICARE Prime. I have already paid my enrollment fee. If I choose to disenroll after I have enrolled in TRICARE Prime, what penalty is incurred? Can I get back into TRICARE Prime if I don't like the other options?

Answer: As a retiree or family member of a retiree, you will have to pay an enrollment fee of \$230 for yourself (or \$460 for your whole family) each year for health care coverage under TRICARE Prime. Enrollment is for 12 months. You will not receive a refund on enrollment fees that you have paid should you decide to disenroll from the TRICARE Prime Program. If you disenroll early, that is before your 12-month enrollment period ends, you must wait for 12 months to be eligible to re-enroll in the TRICARE program.

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Headline: Healthwatch: Breast cancer can strike anyone, anytime: are you prepared?
By Lt. James W. Mickey, NC, Naval Hospital Yokosuka

YOKOSUKA, Japan -- October is Breast Cancer Awareness month. Did you know that 180,300 new cases of breast cancer were diagnosed in the United States in 1998 and that 43,900 women died from this cancer?

Did you know that the most common cancer in women - breast cancer - accounts for 32 percent of all cancers?

Did you know that breast cancer will affect 1 in 8 women?

Did you know that about 1 percent of men get breast cancer?

Did you know that you are never too young to be diagnosed

with breast cancer -- one woman was 24 years old.

These alarming statistics about breast cancer indicate why it's important that we all learn more about it and how we can prevent, detect and eradicate it. Breast cancer can be fatal if not detected and treated in a timely manner. Breast cancer can strike anyone at anytime. Are you prepared? If not, this is some essential information to prepare you should you have to meet that challenge.

Breasts consist of lobules, or mammary glands, which produce milk during pregnancy and breastfeeding. Ducts carry milk from the lobules after childbirth. The nipple allows the ducts to release and pass milk during breastfeeding.

Chest muscles move your arm through a normal range of motion. Axillary lymph nodes filter lymph fluid from your breast and help your body fight infections. Fatty tissue adds to the size of your breast and provides shape. During normal breast cell growth, the cells reproduce or divide in a controlled way, following a series of well-defined steps.

Now that we have established the general makeup of breast tissue, you may find yourself asking, what is breast cancer? Simply, breast cancer occurs when cells in the breast grow abnormally. Cancer cells differ from normal cells in several ways. They vary in size and shape. They divide quickly and sometimes move into other areas of body tissue. Cancer may appear as a lump, with about 50 percent usually found in the upper-outer section of the breast.

Most lumps detected in breast tissue are not of concern. A fibrocystic breast change, for example, is a common benign breast condition that you may notice and associate with a change in the texture or firmness of your breast. It manifests as a lump and it may be painful. This is very common. It is not a disease and it is not cancer.

Your doctor can rule out problems and help ease your symptoms. He or she can also tell you which lumps need to be evaluated. As a general rule of thumb, lumps that get smaller or go away after your period are probably not of concern.

Two of the most common types of breast cancer are non-invasive or carcinoma in situ, and invasive breast cancer. In noninvasive breast cancer, the cancer cells are confined inside of the breast ducts or lobules.

With invasive breast cancer, abnormal cells spread beyond the ducts or lobules, invading the surrounding breast tissue. They can then move into the lymph nodes or bloodstream. If this happens, they travel to another part of the body (metastasize). In some cases, the abnormal cells travel to the lungs, liver, or bones.

Now that you have a general understanding about breast cancer, let's look to see who's at risk. Significant risk factors include age, estrogen exposure, obesity, lack of exercise, smoking, excessive alcohol use and a family history of breast cancer.

Screening for high-risk patients with a strong family

history should begin 10 years prior to the age that the first-degree relative developed breast cancer. In other words, if your mother developed breast cancer at age 40, then you should start screening at age 30.

There is no increased risk of incurring breast cancer for previous use of birth control pills, breast augmentation and pregnancy loss or termination.

Prevention through early detection is clearly your best ammunition in defending yourself against breast cancer. Because most breast lumps are found by women, themselves, you should learn how to examine your breasts and do so monthly. As you do this, you will develop more confidence in knowing how your breasts normally feel and you should more easily recognize changes.

Performing breast self-examination should occur at the same time each month either after your period or, if menopausal, on the first day of each month. Look and feel for changes in the entire breast area.

Have a breast exam by a health care provider at least every three years from age 20 to 40 and annually thereafter. Have a mammogram every one or two years from age 40-49 as directed by your health care provider. A mammogram is required annually after age 50. If you have questions about how often you should receive a mammogram, please discuss this with your health care provider for specific Department of Defense guidelines.

Mammography is a special x-ray exam of your breast tissue. The image produced is called a mammogram, which can help detect problems with your breasts. There's a small amount of radiation with mammography, but the benefits of this test far outweigh any risks.

Other diagnostic methods of evaluating your breasts include ultrasound. It is used to detect and evaluate breast abnormalities that are found on mammograms or in a physical exam. It is useful for some breast masses and is the only way to tell if a fluid-filled cyst is present without placing a needle into it to draw out fluid.

A biopsy is the only way to tell if cancer or a benign breast tumor is really present. A Fine Needle Aspiration Biopsy uses a thin needle, which is even smaller than the needle used for blood tests, to enter the area of abnormal breast tissue and draw out fluid. The specimen is examined to determine whether it is benign or cancerous.

The routine evaluation of a breast mass is done by correlating the results of the breast physical examination, mammography, and the Fine Needle Biopsy. If all three of these tests appear benign, the lesion can be considered to be benign with about 98 percent accuracy. If any one of these is in disagreement, additional testing should be performed.

The eradication of breast cancer is usually accomplished with various kinds of surgical intervention.

Lumpectomy

Removing breast tissue containing cancer cells

(lumpectomy) is done to conserve the breast. Some surrounding normal tissue is also taken to ensure that all evidence of the cancer is removed. The procedure takes about an hour and often does not require a hospital stay. In most cases, it is followed by radiation therapy. The advantages of lumpectomies are they can be as effective as mastectomies and the breast is spared. The procedure also preserves normal nipple and skin sensation as well as yields good cosmetic results.

Mastectomy

Mastectomy is surgical removal of all the breast tissue, including the nipple. This surgery most often requires a hospital stay. Based on the results of surgery and follow up tests, further treatment may be needed. Do not confuse this treatment with the radical mastectomy.

The radical mastectomy removes the entire breast, the lymph nodes in the armpit, and one of the major muscles of the chest wall. This was based on an assumption that the more tissue removed, the better the chances of curing the cancer. It was noted through research back in the 1980s that there was no advantage in removing the chest muscles. The modified radical mastectomy spares the chest wall muscle, yielding a more cosmetically acceptable result.

After the mastectomy, the surgeon will explain options for cosmetics. You can wear a specially fitted breast prosthesis under a mastectomy bra. You can opt for having reconstructive surgery. To create a new breast, an implant can be inserted under the chest muscle. Another option is to move abdominal muscle, fat and skin to the chest, this called a Transverse Rectus Abdominus Myocutaneous Flap.

Axillary Lymph Node Dissection

When performing axillary lymph node dissection, the surgeon will remove part of your lymph nodes and then have them examined for evidence of cancer spread. Removing the lymph nodes assists in the diagnosis of metastatic cancer.

Sentinel Node Biopsy

The Sentinel Node Biopsy is alternative to the Axillary Lymph Node Dissection. During surgery, a blue dye is injected into and around the tumor. The lymphatic fluid in that area carries the dye to the first node in its path - the sentinel node. That single node is removed and examined for evidence of cancer. If no cancer cells are found, the surgeon can assume that the other nodes are free of cancer as well.

Chemotherapy is a medication used to help keep breast cancer from returning. It can be given before surgery, after surgery or on its own. Chemotherapy is often used for tumors that are large or aggressive. It is also used for cancers that have spread to the lymph nodes or some other part of the body.

The medication can cause side effects. It is usually given intravenous or in pill form. It is given most often as outpatient therapy. Treatment may be given every 21 or 28 days cycle. Between doses the body has a chance to

recover. The entire course of treatment often lasts 4 to 6 months.

Radiation therapy is used to destroy cancer cells that may remain in breast tissue after surgery. This helps prevent cancer from returning. It is very likely to have radiation therapy following a lumpectomy. It is also sometimes used after mastectomy. Radiation therapy uses the same type of x-rays that are commonly used to create an image of the chest or of a broken bone. But for treatment purposes, the x-rays are of higher intensity and deliver much higher doses. Radiation therapy usually lasts about 5 to 7 weeks.

The goal of each of these treatments is to remove the cancer. Your surgeon and you will decide which approach may be best, based on medical factors and your own feelings. You may discuss whether you should have surgery before or after other types of treatment or whether to have breast reconstruction as well.

Facing breast cancer can be difficult, and making treatment decisions is not easy. Should you find yourself, a friend or a loved one diagnosed with breast cancer, take time to learn more about the disease. Prescribe a little information therapy for yourself. It's one of the best ways to regain a sense of control, to understand the disease management process and to improve your ability to ask questions and understand answers.

There are many interesting books, articles, videos, cassette tapes, etc. available today. The Internet is a fast way to obtain more information about different support groups and resources.

Surf the web and gain more information about breast cancer, but be careful where you surf; choose reputable and science-based sites. Help combat the fears, the confusion and often the misconceptions that may occur regarding breast cancer.

There are some statistics that show women can lower their chances for breast cancer:

- Women who exercise regularly have a 37 percent reduction in the relative risks for breast cancer.
 - Breast-feeding for 24 months (straight) has shown to reduce your risk for breast cancer by 28 percent.
- But even though you or a loved one may be fighting breast cancer, remember that cancer is also limited:

It cannot cripple love, It cannot shatter hope, It cannot corrode faith

It cannot destroy peace, It cannot kill friendship, It cannot suppress memories

It cannot silence courage, It cannot invade the soul, It cannot steal eternal life

It cannot conquer the spirit!

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Comments about and ideas for MEDNEWS are welcome. Story submissions are encouraged. Contact MEDNEWS editor, Earl W. Hicks, at email: mednews@us.med.navy.mil; Telephone 202/762-

3223, (DSN) 762-3223, or fax 202/762-3224.

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